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ABSTRACT

This 4-section report begins with an introductory statement on the overall state of Japan's educational system and covers educational administration, organizations for the promotion of audiovisual instruction in Japan, and educational broadcasting agencies. The current Standards for the Provision of Instructional Aids and Equipment for compulsory schooling are then detailed, and production of instructional materials and equipment is discussed. (Production is handled by two types of organizations: one which produces audiovisual materials including video, films, and transparencies; and the other which produces textbooks and printed materials.) Specific topics addressed include the present status and organization of the production and distribution of educational audiovisual materials, role of the ministry of education in the production of audiovisual materials, educational film production and distribution, production of educational broadcasting programs, and production and distribution of textbooks and printed materials. A discussion of the support system for utilization of teaching materials covers audiovisual laboratories and standards for provision of audiovisual equipment in such laboratories. Conclusions are drawn from the existing educational media situation, and recommendations are made. Ten tables display related data. (LMM)

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Division of Structures, Content,
Methods and Techniques of
Education

UNESCO, Paris

1602

A CASE STUDY ON EDUCATIONAL MATERIALS AND MEDIA IN JAPAN

This report has been prepared for Unesco in 1980 by the National Institute for Educational Research, Tokyo, Japan.

(ED-81/WS/107)

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A Case Study on Educational Materials and Media in Japan

I

INTRODUCTION

This is a case study on educational materials and media in Japan which has been prepared for the United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris by the National Institute for Educational Research (NIER), Tokyo, Japan.

The report is divided into four sections, beginning with the following introductory statement on the overall state of Japan's educational system.

1.1. The School System in Japan

After the Second World War, the school system in Japan was radically modified and the so-called "six-three-three" system was established. Compulsory schooling, initiated in 1947, lasts nine years: six years at the elementary and three years at the lower secondary level. During the same period, the co-educational system was also introduced from the elementary to higher education levels. After lower secondary school, three years are spent at upper secondary school.

Higher education is divided into two streams: a four-year undergraduate stream which will lead to preparation for masters and doctors degrees and a two to three year junior college stream. Table no. 1. shows the enrollment rates of each level of education.

Table 1 - Enrollment by levels of Education - 1948-1978

Levels	Year						
	1948	1953	1958	1963	1968	1973	1978
Kindergarten	7.3%	14.0%	25.2%	36.4%	49.4%	60.6%	64.1%
Compulsory ed.							
Elementary	99.64	99.75	99.81	99.82	99.83	99.86	99.94
Lower Secondary	99.27	99.91	99.93	99.91	99.90	99.89	99.94
Upper secondary		48.3	53.7	66.8	76.8	89.4	93.5
Male		52.7	56.2	68.4	77.0	88.3	92.7
Female		43.7	51.1	65.1	76.5	90.6	94.4
Higher education			10.7	15.5	19.5	32.7	39.0
Male			16.0	21.8	24.3	38.5	44.2
Female			5.2	9.0	14.5	26.7	33.5

Source: Educational Statistics, Ministry of Education, 1979

Before compulsory schooling, pre-school kindergarten education is available for children from three to five. In addition, there are nursery schools which come under the jurisdiction of the Social Welfare Agency. Legally, this is a welfare facility for children lacking appropriate day care in their homes, but, in fact, the nursery school also takes care of infant education. According to a survey conducted by the Ministry of Social Welfare and Health in 1977, the enrollment rates of kindergarten and nursery schools are as follows:

	Kindergarten	Nursery school	Total
4 year old children	37.7%	29.6%	67.3%
5 year old chilren	63.4%	27.6%	91.0%

More than 90% of five-year old Japanese children attend either kindergartens or nursery schools.

During Japan's pre-war period, enrollment in compulsory schools had already reached almost one hundred percent. The most noticeable trend in post-war Japan was the increase in enrollment in upper secondary schools. Table 1 shows the rate of increase in the late sixties and seventies. There was also a remarkable increase in enrollment in institutions of higher education. This reached 52.5% for boys and 49% for girls in 1978 if the enrollment figures for

special training colleges and institutions providing professional/ vocational training courses lasting six months to two years for graduates from upper secondary schools are included.

1.2. Educational Administration

Policies for the decentralisation of educational administration came into force after the Second World War. Japan is divided into 47 prefectures which are sub-divided into 3.300 municipalities, each of which is required to set up a Board of Education as an educational administrative agency for the area. The Board of Education is responsible for establishing and maintaining public schools and other educational facilities, setting up guidelines for educational materials and equipment to be provided in schools and financing intra- and extra-mural educational activities.

Compulsory schooling comes mainly under the jurisdiction of the municipal boards of education. Very few schools are maintained by the central government or belong to private educational institutions. Upper secondary schools are mainly established and maintained by the prefectures. There are also some upper secondary schools maintained by the central or municipal governments. 25% of upper secondary schools are privately established.

Responsibility for educational finance is shared by the central, prefectural and municipal governments. Respective governments are assumed to have responsibility for financing educational programmes coming under their jurisdiction with funds derived from taxes and other income. Central government subsidizes the educational programmes of both prefectural and municipal governments; the prefectural government also subsidizes the municipal educational programmes within its jurisdiction. The amount of subsidies differ from one item to another. For example, the salaries of teachers in compulsory public schools are financed by both the central and prefectual governments on a fifty-fifty basis, although the compulsory schools come under the jurisdiction of the municipal board of education. Textbooks distributed free of charge to all children in elementary and lower secondary schools are paid for by the central government alone. Half of the cost of educational materials and media to be utilised at school within the framework of standards set by the central government is covered by the central government and the remaining half is either shared equally by the prefectural and municipal governments or exclusively by one of them.

The central government establishes an executive agency for educational administration which is called "Monbu-sho" or Ministry of Education, Science and Culture (hereinafter referred to as the Ministry of Education). The Ministry's Elementary and Secondary Education Bureau is responsible for setting standards for educational materials and media needed by schools, developing

policies to assist in procurement of equipment, guiding the development of educational materials and media, approving school textbooks, distributing textbooks free of charge to children in compulsory schools etc.

The Audio-Visual Education Division is a section of the Social Education Bureau in the Ministry. This Division is responsible for providing information on audio-visual aids and materials and assistance for the production of audio-visual materials for both school and social education. No prefectural or municipal government has an audio-visual section within its Board of Education. The work of the Audio-Visual Education Division of the Ministry is therefore handled by the school or social education section of the local Board of Education, according to what has to be done.

1.3. Study Organisations for Audio-Visual Education

There are three national organisations for the promotion of audio-visual instruction in Japan:

Japan Association of Audio-Visual Education in Schools;
Study Association for Audio-Visual Education in Upper Secondary Schools;
National Association for Audio-Visual Education.

They are all voluntary, but partly subsidized by the Ministry of Education.

a) Japan Association of Audio-Visual Education in Schools.

This is a municipal association of audio-visual educational sections in schools to which all elementary and lower secondary schools in the area are affiliated. All elementary schools in Japan have someone on their staff in charge of audio-visual instruction and this person is the school representative to the municipal association.

Municipal associations within the prefecture join together to form a prefectual association of audio-visual education in schools which is supported by prefectural boards of edcuation. Forty-seven prefectural associations make up the Japan Association which receives support from the Ministry of Education. The Association deals with all audio-visual educational materials from graphs and charts to sophisticated technological tools, such as the response analyser and teaching machine, except educational broadcasts. Videotape is now being studied not only by the Japan Association of Audio-Visual Education in schools but also by the educational radio and television organisations (see 1.4). Originally, the Association focussed on the use of educational films, but now also studies videotapes.

Activities at the municipal level differ from one municipality to another. In an active municipality, the association organises regular seminar and meetings on the use of audio-visual educational materials. Activities at the prefectural level are more or less similar throughout the country. The prefectural association organises an annual study meeting mainly composed of demonstrations on the use of audio-visual materials, lectures, presentation and discussion of case studies, etc. The demonstration class is likely to be the main component of the meeting at all levels - prefectural, national and municipal. A National Convention is organised once a year by the Japan Association. In addition, this association organises a special summer course of three to four days for training those responsible for audio-visual education in schools.

b) Study Association for Audio-Visual Education in Upper Secondary Schools

This is a national organisation promoting audio-visual education at the upper secondary level. Functions, organisation and activities are more or less the same as the Japan Association of Audio- Visual Education in Schools. The most crucial issue in recent years at the Association's National Convention was the establishment of audio-visual libraries at the prefectural level for use by upper secondary schools. The majority of municipalities in Japan run a film/audio-visual materials library in one form or another: its function is mainly the effective use of audio-visual educational materials in elementary and lower secondary schools. No library facilities exist at upper secondary level. Teachers in charge of audio-visual education in upper secondary schools are, therefore, very keen to establish logistics for upper secondary school audio-visual education.

c) National Association of Audio-Visual Education

This is a national organisation promoting audio-visual education in the field of social education. Social education in Japan means any extra-mural educational activities.

This association has no branch organisations and members are individual social educationalists, mainly advisers and staff of the social education sections of local boards of education.

The association organises regional study meetings and a national convention, with functions similar to those of the Japan Association. The Ministry of Education helps in the organisation of the National Convention.

1.4. Study Organisations for Educational Broadcasting

Educational broadcasting agencies in Japan are divided into two categories: the semi-governmental national broadcasting corporation (hereinafter referred to as NHK) and commercial broadcasting companies. Both have educational broadcasting programmes.

All Japan's Teacher's Federation for Study in the use of Radio and Television in Education.

This is an umbrella organisation entirely supported by NHK and composed of :

Teacher's Federations for use of radio and television in Education -

- for Kindergarten Education;
- for Elementary Education;
- for Lower Secondary Education;
- for Upper Secondary Education.

NHK covers almost all the running costs of these organisations. There is a unit of each organisation in school. As with the Japan Association of Audio-Visual Education in Schools, a staff member in charge of educational broadcasting in each school (from kindergarten to upper secondary school; and sometimes one person is in charge of both audio-visual education and educational broadcasting) is nominated as the representative of the school to the prefectural association of educational radio and television. These prefectural associations form a national association. In some prefectures, the prefectural association of audio-visual education in schools is at the same time the prefectural association of educational radio and TV.

In addition to the annual national convention, the All Japan's Federation organises a training course at three places in the country for those in charge of educational broadcasting for three to four days during the summer holidays. Prefectural and regional study meetings are organised once a year.

The Association focusses its attention on improving the use of educational radio and television programmes, including use of videotapes.

Societies for Voluntary Educational Broadcasting

These are few, but there are several commercial broadcasting companies which broadcast educational programmes for social and home education. The companies concerned form a society for Voluntary Educational Broadcasting which organises a study meeting once a year inviting leader-teachers, education officials, education workers undertaking various educational activities outside the school and discusses ways and means of improving the use of broadcasts for social and home education.

SCHOOLS AND EDUCATIONAL MEDIA

As a result of the spread of elementary and lower secondary education and the increase in the number of people receiving education, upper secondary education has made rapid progress and has been universalised. Even higher education is nowadays considered to be part of general education. However, this quantitative expansion of education cannot be further promoted without some qualitative improvement and in Japan, educational media has been introduced to this end. The most important and urgent task for education is the further improvement of the quality of education through the introduction of new educational techniques and their effective utilisation.

With this in mind, the present status of educational media in schools is explained as follows

Table 2 : Percentage of local public schools furnished with major audio-visual equipment - comparison between 1972 and 1977

Types of Schools	Elementary		Lower Secondary		Upper Secondary	
A-V equipment	1972	1977	1972	1977	1972	1977
16 mm projector	46.6	51.0	44.7	51.4	87.2	91.6
8 mm projector	71.1	77.3	73.9	78.2	79.0	81.5
Slide projector	96.0	92.9	93.8	94.7	96.6	96.8
Overhead projector	86.4	98.5	96.7	98.7	93.2	97.3
Episcope	25.3	35.1	31.9	38.0	37.2	32.1
TV set (Black and white)	93.5	70.9	84.6	61.5	78.1	70.2
TV set (colour)	30.8	91.2	18.9	75.2	25.4	64.1
In-school broadcasting system	93.9	97.6	87.2	99.1	91.8	97.4
Closed circuit television system	10.5	22.6	6.6	14.9	4.3	4.9
Tape recorder (reel to reel)	92.2	76.5	95.0	78.3	96.1	86.7
Tape recorder (cassette)	54.2	92.2	64.7	92.7	71.4	91.5
VTR (black and white)	16.7	22.6	25.7	31.7	65.2	67.9
VTR (colour)		24.9		33.1		49.2
Response analyser	3.7	7.5	8.9	15.9	5.0	12.0
Language laboratory	0.5	0.6	7.8	11.4	7.7	15.2

Table 2 shows the distribution rates of audio-visual equipment in local public schools in 1972 and 1977. Colour TV sets and cassette tape recorders have been widely distributed at all levels of schools compared with 1972. The distribution rates of other items, except TV sets (black and white) and reel to reel taperecorders have also been increased. Although the response analyser and language laboratory have a low percentage use, the rates almost doubled in 1977 as compared with 1972 in lower and upper secondary schools. More than 90% of elementary and lower secondary local public schools are supplied with overhead projectors (OHP), cassette taperecorders and slide projectors ; in upper secondary schools a 16 mm projector is added.

Table 3 shows the average number of units of A-V equipment existing in schools.

As shown in table 3, for such frequently used items as TV sets (both black and white and colour), taperecorders, magnetic card players, OHP, slide projectors, more than one set is kept.

This equipment may have to be provided in each classroom if the effectiveness of instruction is to be enhanced. In certain areas and schools. attempts have already been made to provide one set of TV or OHP in each classroom. It is, therefore, an urgent and necessary task for the improvement of the quality of education that all schools be provided with major educational equipment and that frequently used items be available in each classroom.

Although details will be given in the following section, briefly, the Ministry of Education formulated Standards for the Provision of Instructional Aids and Equipment for compulsory schooling in 1967 and since then has promoted the supply of instructional aids and materials by providing various subsidies under a first ten-year plan. In 1978, the old Standards were revised and it was decided to implement a second ten-year plan for the provision of Instructional Aids and Equipment. The amount of national subsidies allocated for the second ten-year plan doubled in terms of a price index compared with the First Ten-year Plan, thus indicating that the Government had paid great attention to the improvement of the quality of education through the supply of instructional aids and equipment.

The above policy and other laws on the promotion of science and industrial education mainly relate to compulsory public education in Japan. According to Ministry of Education statistics in 1978, 59.5% of kindergartens were privately controlled and 73.8% of children enrolled attended private kindergartens. For elementary schools, both the number of private schools and pupils enrolled in them were less than one percent; 5% of lower secondary schools and 3% of pupils enrolled are privately controlled. But, 24.2% of schools are private and 23.3% of enrolled students are in private upper secondary schools.

Table 3 : Average number of audio-visual equipment owned by Educational institutions (May 1977)

A-V equipment	Type of institution			
	Kinder-garten	Elemen-tary school	Lower secon-dary school	Upper secon-dary school
16 mm projector	1.03	1.13	1.15	1.45
8 mm projector	1.09	1.20	1.25	1.67
Concept (loop) film projector	1.00	1.24	1.34	1.25
Slide projector	1.31	3.06	2.92	4.30
Overhead projector	1.48	7.94	7.56	4.94
Episcope	1.22	1.08	1.15	1.18
TV set (black and white)	2.76	11.01	4.65	3.14
TV set (colour)	3.11	6.60	4.05	3.13
TV camera (black and white)	1.17	1.41	1.30	1.33
TV camera (colour)	2.17	1.29	1.52	1.16
VTR (black and white)	1.00	1.32	1.50	1.52
VTR (colour)	1.17	1.44	1.72	1.49
Types of VTR Open	1.22	1.43	1.81	1.77
Types of VTR Cassette	1.00	1.32	1.50	1.32
Types of VTR Cartridge	0.00	1.43	1.68	1.35
Taperecorder (reel to reel)	1.49	2.31	3.00	4.85
Taperecorder (cassette)	2.32	3.76	5.45	8.42
In-school broadcasting system	1.00	1.00	1.00	1.00
Closed circuit TV system	1.00	1.00	1.00	1.00
Magnetic card player	3.80	6.59	10.48	5.10
Record player	4.24	4.45	3.25	3.51
Response analyser	0.00	1.28	1.36	1.40
Language laboratory	0.00	1.00	1.07	1.01
Music laboratory	0.00	1.00	1.00	0.00

Private schools, at both pre-primary and upper secondary levels have been playing a vital role in non-compulsory education. In fact, the quantitative expansion of education has been achieved by the existence of private schools and their increase in numbers. In order to realise qualitative improvement of education at all levels, it is, therefore, important that the introduction of educational media into private schools be facilitated and encouraged.

III

STANDARDS FOR PROVISION OF INSTRUCTIONAL AIDS AND EQUIPMENT

The School Education Law stipulates that expenditure necessary for compulsory education has to be borne ,in principle, by those establishing the schools. Therefore, educational expenditure of local public compulsory schools for construction of school buildings, purchase of textbooks and other teaching materials etc., has to be fully borne by local public bodies. If this were to be enforced, then the financial burden on local public bodies would become huge and create differences in implementation between prefectures, due to their respective financial situations.

To rectify such differences, the Ministry of Ecucation has institutionalised various national subsidies and grants. In 1951, the Law for the Promotion of Industrial Education at Lower and Upper Secondary Schools was passed and a national subsidy approved. In 1953, the Law for the Promotion of Science Education and the School Library Law were passed to provide national subsidies for the procurement of science education materials and for the supply of books for school libraries in elementary, lower secondary and upper secondary schools and schools for the deaf, blind and otherwise handicapped children.

In line with the above, the Law concerning the National Treasury's share of Compulsory Education Expense was formulated to cover public compulsory schooling.

Article I of this Law prescribes that "the objectives of this Law are, by sharing the expense of compulsory education borne by the national government, to give equal opportunities in education to all and to improve levels of education in order to assure certain levels and contents of education based on the principle of free compulsory education"

This law also prescribes the government's share of salaries of teachers, as well as that of the costs of teaching materials. For teaching materials, Article 3 states that the national government has each year to bear half the expense of teaching materials required by local compulsory schools established by prefectures and municipalities, and that this share should not exceed half of the lump sum which is calculated based on the types of compulsory schools and the number of pupils and students attending.

At that time, national funds were not sufficient to fully cover such expenses; there was a disparity in the financial situation of local public bodies. This meant that those schools receiving financial assistance from parents, PTAs and other supporting organisations did still not decrease. Another problem was that the types and the number of instructional materials and aids introduced into schools differed from school to school due to lack of regulatiors on the type and quantity of instructional aids to be introduced.

In view of this situation, it was the opinion of many that a bill needed to be formulated to foster the provision of instructional materials and aids in schools with national subsidies. In response, the Ministry of Education drew up a "Ten-Year Plan for the Provision of Instructional Aids and Equipment". The "Standards for the Provision of Instructional Aids and Equipment" were also instituted in 1967 with a view to prescribing the type and quantities of teaching materials essential for improving teaching content at schools.

In 1967, the Ministry of Education notified each prefectural board of education about the national treasury's share of the cost of teaching materials based on the Law of National Treasury's share of Compulsory Education Expense and the Special Measures for Maintenance and Enhancement of Public Schools. This notification prescribed the range of instructional aids and equipment covered by national funds as the Standards for the Provision of Instructional Aids and Equipment. It was also decided to increase funds for the improvement of instructional aids and equipment in each school. Budgetary provision of 180 billion yen was made for this Ten-Year Plan. As a consequence, the cost of teaching materials was gradually shared by the national government.

3.1. Launching of the First Ten-Year Plan for Provision of Instructional Aids and Equipment

The basic principles for the organisation of curriculum from kindergarten to upper secondary schools are described in the National Courses of Study. This is a legal and binding document and the standards of curriculum organisation, such as the objectives and content of each subject and special activities are established therein. However, each school is allowed to prepare its own specific teaching plan.

The Standards for the Provision of Instructional Aids and Equipment were instituted in 1967 as previously stated, with a view to prescribing the items and quantities of main teaching materials necessary to implement the teaching content as defined in the Course of Study. Altogether, 2.258 items for elementary and lower secondary schools were listed as Standards for Instructional Aids and Equipment, except those items covered by the Law for the Promotion of Science Education, the Law for the Promotion of Industrial Education and the School Library Law, expendables with a life-span of less than three years, and abacuses and dictionaries for individual learner's use.

The Standards classified the items for use in Japanese language social studies, arithmetic/mathematics, music, arts and handicrafts, domestic science, health and physical education. foreign languages, guidance and items common to different subjects. Suggested quantities of instructional materials for six different school sizes, classified by their respective number of classes, along with the unit cost for each item are prescribed. Audio-visual aids are included in the common use category (see tables 4 and 5)

In accordance with the above Standards for Instructional Aids and Equipment, instructional aids have been gradually installed in

schools. In line with Japan's economic expansion, the funds allocated by local public bodies for the purchase of teaching materials were also increased thus enabling schools to be rapidly equipped with teaching materials. It served to rectify in this way, the imbalance between schools and to upgrade education in schools.

Table 4 : Standards of Instructional Aids and Equipment (instituted in 1967 for elementary schools)

Items for common use	Size of school (no. of classes)					
	Less than 5	6-12	13-18	19-24	25-30	More than 31
Wooden frame for picture story shows	1	1	2	2	3	3
Slide projector	1	2	3	3	4	4
8 mm film projector		1	1	1	1	1
16 mm film projector		1	1	1	1	1
Overhead projector	1	1	1	1	1	1
Episcope			1	1	1	1
Projection screen	2	3	4	4	5	5
Portable record player	1	2	2	3	4	4
Taperecorder	2	3	4	5	6	6
TV set (master)	1	1	1	1	1	1
TV set (subsidiaries)		1	2	3	4	5
Still camera	1	1	1	1	1	1
Radio receiver	5	12	18	24	30	36
Slide (sets)	150	150	150	150	150	150
Record	60	60	60	60	60	60

Table 5 : Standards of Instructional Aids and Equipment (instituted in 1967 for Lower Secondary Schools)

Items for common use	Size of school (no. of classes)					
	Less than 5	6-9	10-15	16-21	22-27	More than 28
Slide projector	1	2	3	3	4	4
8 mm film projector	1	1	1	1	1	1
16 mm film projector		1	1	1	1	1
Overhead projector	1	1	1	1	1	1
Episcope		1	1	1	1	1
Projection screen	2	3	4	4	5	5
Taperecorder	2	3	4	5	6	6
Portable record player	1	2	2	3	4	4
TV set (master)	1	1	1	1	1	1
TV set (subsidiaries)	1	2	4	6	8	10
Still camera	1	1	1	1	1	1
Radio receiver	5	9	15	21	27	33
Slide (sets)	170	170	170	170	170	170
Record	170	170	310	310	335	335

3.2. Problems encountered in implementing the first Ten-Year Plan

During the first Ten-Year Plan, some problems arose regarding the Standards. First, there were doubts about the appropriateness of the quantity of items indicated in the Standards. For example, the Standards stated that one set of OHP was to be installed regardless of the size of the school; three sets were indicated for schools with 18 classes. However, in the early seventies, the trend was to have one TV set and one OHP in each classroom, thus making the standards meaningless and calling for their revision.

Secondly, various new audio-visual aids and other equipment such as VTR/VCR, language laboratories, teaching machines and response analysers were gradually introduced into schools. Descriptions for the use of such items were consequently included in the Handbook on the use of Audio-Visual Aids published by the Ministry of Education. With the development and increasing use of such new materials and equipment, items listed in the Standards became out of date.

Third, the local board of education interpreted the Standards as the upper limit for school equipment and tended to decline requests made by schools for items over and above the quantity prescribed in the Standards.

Realising the above problems, the Ministry of Education, taking into account requests made by study groups of teachers (organisations of users), the Japan Association of Audio-Visual Education in Schools and others, notified the local board of education in 1973 that the Standards were only suggested criteria and could be flexibly interpreted, based on the development and actual utilisation of audio-visual aids.

3.3. Promulgation of the Revised Standards

Slight modifications of the Standards for Provision of Instructional Materials and Equipment made in 1973 did not work well due to the fact that some schools had already attained the Standards and so much new and effective equipment had been developed and already used. A complete revision of the Standards was called for by groups of teachers. Groups such as the National Association of Principals of Elementary and Lower Secondary Schools, the Japan Association of Audio-Visual Education in Schools and the All-Japan Teachers' Federation for Studying the Use of Radio and Television in Education were leaders of public opinion for revision of the Standards.

To meet their requests, the Ministry of Education began to formulate new standards which were issued in 1978 as the "Revised Standards."

Items selected in the Revised Standards for Elementary and Lower Secondary Schools are given in Tables 6 and 7 respectively.

Table 6 : Revised Standards of Instructional Aids and Equipment (instituted in 1978 for Elementary Schools)

Items for common use	Size of school (no of classes)					
	Less than 5	6-12	13-18	19-24	24-30	More than 31
Wooden frame for picture story shows	1	1	2	2	3	3
Slide projector	1	2	3	3	4	4
8 mm film projector	1	1	2	2	3	3
16 mm film projector	1	1	1	1	1	1
Overhead projector	6	13	19	25	31	37
Episcope	1	1	1	1	1	1
Projection screen	6	15	22	28	35	41
Portable record player	1	2	3	3	4	4
TV related equipment (TV set, VTR, Camera, etc)	8	17	23	29	36	41
Electric copying machine	1	1	1	1	1	1
Transparency maker	1	1	1	1	1	1
8 mm film editor	1	1	1	1	1	1
Radio receiver	2	4	6	6	8	10
In-school broadcasting system	1	1	1	1	1	1
Response analyser	1	1	1	1	1	1
Slide (sets)	160	180	200	220	240	260
Record	190	220	250	280	310	340
Transparency (sets)	160	180	200	220	240	260
8 mm films	80	90	100	110	120	130
16 mm films	2	2	3	3	3	3
Recorded audio tape	160	180	200	220	240	260
Video tape	80	100	120	140	160	180
Picture story shows	30	40	50	60	70	80

Table 7 : Revised Standards of Instructional Aids and Equipment (instituted in 1978 for Lower Secondary Schools)

Items for common use	Size of school (no. of classes)					
	Less than 5	6-9	10-15	16-21	22-27	More than 28
Slide projector	1	2	3	3	4	4
8 mm film projector	1	1	2	2	3	3
16 mm film projector	1	1	1	1	1	1
Overhead projector	6	10	16	22	28	34
Episcope	1	1	1	1	1	1
Projection screen	6	12	19	24	30	37
Portable record player	1	2	3	3	4	4
Recordings/related equipment (tape recorders, sheet type recorders, etc)	13	18	24	24	27	30
TV related equipment (TV sets, VTR, video cameras, etc)	8	14	20	26	33	39
Electric copying machine	1	1	1	1	1	1
Transparency maker	1	2	3	3	4	4
8 mm film editor	1	1	1	1	1	1
Radio receiver	1	2	3	4	5	6
In-school broadcasting system	1	1	1	1	1	1
Response analyser	1	1	1	1	1	1
Slide (sets)	160	180	200	220	240	260
Record	270	310	350	390	430	470
Transparency (sets)	160	180	200	220	240	260
8 mm film	110	130	150	170	190	210
16 mm film	4	4	6	6	6	6
Recorded audio tapes	160	180	200	220	240	260
Video tape	130	150	170	190	210	230

In all, 3.413 items were included in the Revised Standards, and the number of items was increased by 51% compared with the old Standards. The total cost envisaged for installing listed items between 1978 and 1987 under the Second Ten-Year Plan was 457.2 billion yen and this was almost doubled in terms of a price index compared with the amount allocated for the First Ten-Year Plan.

Some features of the Revised Standards are as follows:

i) The old Standards indicated basic required items and quantities; in the new Standards, items and quantities are shown as general or suggested criteria for installing instructional aids. This allows for flexible interpretation by schools and permits items to be purchased according to assessed needs;

ii) In order to respond to the changes in market prices of items and new developments of equipment, and modify the Standards accordingly, it was decided to review the Standards every five years;

iii) In view of the recent developments of new materials and equipment, many new items were included in the Standards, The suggested quantity of items was also increased. Some example are:

a) provision of one colour TV set in each classroom

b) Inclusion of VTR/VCR and TV cameras

c) Inclusion of equipment for individualised instruction and response analysers

d) Inclusion of software such as 16 mm motion films, transparencies for OHP, recordings, records and recorded audio tapes

e) Inclusion of equipment for self-production of teaching materials such as electric copying machines, transparency makers, 8 mm film editing machines and photography kits

f) Inclusion of audio and video blank tapes for recording.

Even if each school and local public body purchased instructional materials and equipment for daily use, there would still be disparities between schools and regions due to their differing financial situations. Financial assistance must, therefore, be provided by national government. However, this does not completely rectify regional disparities as the local government still has to provide half of the required expenditures to the local board of education from its general budget. If some local governments did not want to apply for the

national subsidy due to their financial constraints, they do not have to apply for the national subsidy even for the items prescribed in the Standards.

Furthermore, the quantity indicated in the new Standards is still lower than that requested by teachers and other educational personnel although the kinds of items can be flexibly interpreted. This remains a problem to be tackled in the future.

Finally, the Standards were issued for public compulsory schooling and do not cover kindergartens and upper secondary schools. Some measures were, therefore, taken to provide kindergartens, upper secondary schools and private schools with national subsidies and grants.

Expenditure on equipment and other materials for public kindergartens is financed by the national budget and the procurement of teaching materials and equipment, such as slide projectors, TV sets, radio receivers, tape recorders and recordings is subsidized by the national government.

From the 1979 fiscal year, provisions for modernizing equipment in upper secondary schools were made and fifteen million yen per school for 50 schools was allocated. From 1980 onwards, provision for 1.000 schools per year has been made and it will be continued. This makes it possible for upper secondary schools to purchase audio-visual equipment with the subsidy from the national government. Similar provisions for part-time upper secondary schools and for industrial education courses were made to subsidize the procurement of similar instructional aids prescribed in the Standards for public elementary and lower secondary schools.

In view of the important role of private schools in the national system, the government provides them with subsidies for current expenditures. The amount of national subsidies for private schools has been increasing yearly.

Since the national budget has to be well balanced, it is rather difficult to allocate a large amount of funds only for the supply of instructional aids and equipment. However, it is expected that the amounts of various national subsidies for equipment and maintenance of instructional aids and equipment in all types of schools will be increased.

PRODUCTION OF INSTRUCTIONAL MATERIALS AND EQUIPMENT

There are two types of organisation producing instructional aids in Japan. The first produces audio-visual materials, such as 16 mm and 8 mm motion films, slides, transparencies for OHP, recordings, picture story shows, models, maps, recorded video tapes and broadcasting programmes. The other produces textbooks and other printed or reading materials, such as tests, workbooks and drills.

So-called "hardware", such as TV sets, slide projectors, OHP and VTR/VCR as well as "software" are all commercially produced in Japan. There is no system to develop prototype equipment and aids in the Ministry of Education or its affiliated institutions or to commission commercial companies for mass production. Of course, there are cases where prototype educational aids and equipment are developed for special purposes or on an experimental basis by the Ministry of Education. But they do not lead to mass production and wide distribution.

The mass production of hardware and software is entirely dependant upon their marketability; in other words, upon the interest shown by schools and other educational institutions, and their financial situation. Manufacturers of educational equipment organise exhibitions during annual meetings held by various associations and study groups, and through these exhibitions they advertise their equipment to users. They are a good opportunity for users to obtain information on recent developments and new aids.

4.1. Present status and organisation of the production and distribution of educational audio-visual materials

Due to remarkable improvements in the dissemination of photographic equipment, self-production of slides and filmstrips by classroom teachers is flourishing in Japan. Cameras are owned by many teachers and pupils as well as schools. Competitions are held regularly under the auspices of organisations such as the board of education for the purpose of improving the quality of the self-made slides and filmstrips. For audio-visual materials, however, production and distribution systems are required especially for 16 mm and 8 mm motion films and video materials as their production cost and selling prices are higher than other audio-visual materials. In most cases, 16 mm and 8 mm motion films and VTR materials are purchased by local film libraries (these are also called teaching aid centres, media centres or audio-visual centres) rather than individual schools. Details of the film library/audio-visual library will be given in the following section, but it should be noted that their budget is not sufficient to cover costs of various materials available on the market which, in turn, affects the production of those materials by

manufacturers.

Films and video materials produced for instructional purposes are generally very short. Manufacturers of short motion films are relatively small-scale and have limited funds compared with those manufacturing feature films and films for entertainment. Therefore, the number of films made to order is more than that for specifically educational films. Production orders normally come from enterprises and public bodies for their public relations films. They cannot, of course, be used for educational purposes without editing, but in some cases educational films are produced simultaneously with general or PR film made to order, according to the themes of the films

As for production of educational films, the above are almost always 16 mm motion colour films due to production costs and not 8 mm films or videotapes. Many films are produced for social education rather than for school education, one of the reasons being that students of social education tend to learn more easily from audio-visual materials than from printed materials. The target population of social education is quite heterogeneous in terms of age, academic background and occupations, and audio-visual materials are, therefore, more actively and effectively used as major educational materials.

Amongst films produced for school education, however, there are more produced for science and social studies than for other subjects. This is due to the fact that films can control the time and space factors, enlarge or reduce the actual size of objects and offer various experiences of natural and social phenomena which cannot be observed by human eyes.

4.2. Role of the Ministry of Education in the Production of Audio-Visual Materials

Production of audio-visual materials in Japan is generally undertaken by commercial firms. However, the Ministry of Education (MINED) is involved in production to a certain extent. The Audio-Visual Education Division in the Social Education Bureau of the Ministry is in charge of the administration of audio-visual education for social, as well as school education. With this Division as a core, the Ministry of Education is involved in the development and production of audio-visual aids in various forms.

a) Central advisory council

For the production of educational radio and TV programmes, NHK has organised a central advisory council for education broadcasting programmes in which basic guidelines for production of the year's educational programmes are discussed, and recommended to the staff. Division directors of education for kindergarten, elementary, lower secondary and upper secondary school levels of MINED are ex-officio members of the council. NHK also organises grade and subject committees for school broadcasitng programmes and curriculum specialists of MINED are also ex-officio members of these specialist committees.

b) Commissioning

- Broadcast programmes. The Ministry of Education (MINED) requests the Japan Short-Wave Radio Broadcasting Company to produce four short-wave radio education programmes : Window for Teachers, Education for the Mentally Handicapped, Plaza of Visually Handicapped, News from the Social Education Bureau. Each programme unit lasts fifteen minutes and is part of a series of fifty-two units per year. Production costs are covered by MINED.

MINED has also requested the Society for Voluntary Broadcasting Education to produce a weekly TV programme entitled "Parents' Eyes and Children's Eyes" lasting thirty minutes and broadcast fifty-one times per year. MINED also asked the Society to produce and disseminate a special 30 minute programme to be broadcast eight times in the summer.

- Educational films. Production of educational films cannot be left entirely in the hands of commercial production companies as it is difficult for them to produce such films, due to financial constraints. In order to ensure useful and appropriate films for school and social education, the Ministry of Education commissions commercial production companies to produce certain films, although it does not produce films of its own. The films are purchased by the Ministry of Education and distributed to each prefectural board of education. This is called a "Designated Production System".

The minimum production cost is guaranteed by MINED's purchase of the film. The films are then distributed to prefectural boards of education. In 1978, five films for school education, eight films for science education at the upper secondary level and three films for social education were so produced.

In producing films with this system, attempts are made to select topics of educational value which are not taken up by commercial companies and are expensive to produce. Dozens of films are produced this way every year.

In 1978, the production of instructional films on world geography for school education was begun. This was initiated by the Japan Association of Audio-Visual Education in Schools having a systematic production system. This type of film cannot be produced by small scale commercial companies as shooting in foreign countries is required. Also, science films for upper secondary schools dealing with very specific topics are produced as they cannot be commercially produced because of their limited market.

c) Financial assistance for production of community-based learning materials

The Ministry of Education subsidizes local governments who apply for financial assistance to produce learning materials with the aim of enabling people to understand the nature, culture and history of

their local communities. In 1978, the Ministry of Education provided subsidies to 18 prefectures for the production of community-based learning materials in the form of 16 mm and 8 mm motion films, video tapes and slides.

This is an example of a concrete step taken by the Ministry of Education for the promotion of understanding of the local environment and culture, including history, cultural heritage, and folk tales through the use of audio-visual materials.

d) Recommendations.

Since 1947, the Ministry of Education began yearly selecting films, slides and picture story shows of educational value which are recommended as suitable for school or social education.

The number of materials applying for recommendation and that of recommended and specially recommended materials are given in Table 8.

The best quality films, such as those awarded the Ministry of Education Prize, are purchased by MINED and distributed to prefectural boards of education. The number of films purchased is different each year due to the number of films qualifying. In 1978, three films were purchased and distributed.

The selection is made by the Recommendation Committees for all materials submitted by production companies. There are three committees: Materials for School Education; Social Education; and General Feature Films. Recommended or specially recommended materials are not offered a prize, but it is considered that their quality is objectively guaranteed and they are allowed to display labels "Recommended by the Ministry of Education" or "Specially Recommended by the Ministry of Education". With such a label, the producers expect them to be purchased by local film libraries/audio-visual libraries and schools. Furthermore, those designated as "Specially Recommended" materials are purchased by the Ministry of Education and distributed to the prefectural boards of education. This serves as an encouragement for the production of good materials.

4.3. Educational film production and distribution

Production of instructional films is mainly undertaken by individual film companies using their own limited facilities and staff. According to the theme of the film they invite opinions and comments of outside specialists.

Some large publishing companies and commercial film companies have units for the production of educational films. They also have their own nation-wide distribution systems and their own films as well as those of others are sent out to local distributors.

Table 8 Situation of Educational Materials Recommended by the Ministry of Education

Types of Materials		1976			1977			1978		
		No. of titles applied	No. of recommended titles	No. of specially recommended titles	No. of titles applied	No. of recommended titles	No. of specially recommended titles	No. of titles applied	No. of recommended titles	No. of specially recommended titles
MOTION FILMS	School education	111	84	14	152	123	13	129	92	9
	Social education (instructional materials)	117	73	6	96	56	4	78	52	2
	Social education (general/cultural materials)	144	103	6	114	71	6	133	74	4
	Feature films	24	16	6	25	11	8	30	15	8
	Sub-total	396	276	32	387	261	31	370	233	23
SLIDES SERIES	School education	32	27	1	39	28	1	20	13	3
	Social education	4	3	1	7	4	0	6	4	0
	Sub-total	36	30	2	46	32	1	26	17	3
Picture story show		60	35	0	82	42	0	108	55	0
Total		492	341	34	515	335	32	504	305	26

They have the advantage in producing films in that they can select production themes and topics of films with long-range perspectives, based on the needs of users and results of marketing research. However, small production companies cannot afford to have their own distribution system throughout the country and there exists an educational film distribution company with a nation-wide network and many distributing companies with regional networks.

These distributing companies have great influence on the production of educational films. They often decide upon themes and content of films, give advice and guidance on film production and even provide financial assistance to motion picture companies as they are in a position to obtain information on the needs of users through direct contacts with them. There have been systematic attempts to integrate various production efforts in order to improve the quality of educational films and produce suitable materials for teaching. However, an integrated production system such as this has not yet been established.

Some Experience of Systematic Production

After the Second World War, traditional subjects like history, geography and morals were abolished and a new "social studies" discipline was introduced as a subject for compulsory education. Up to now, in elementary schools, the characteristics of an integrated subject of social studies have been maintained and even in lower secondary education the concept of social studies still remains, though it is divided into the subjects of geography, history and civics. The introduction of this new subject raised the problem of developing and producing materials necessary for teaching social studies. One of them was, of course, textbooks, but the importance of developing audio-visual materials, especially 16 mm motion films and slides for learning about the reality of society was emphasized by teachers of social studies and those concerned with audio-visual education.

Consequently, planned production of an "Outline of Educational Films for Social Studies" was initiated in 1949. The production system established at that time was unique as it was a cooperative system of production comprising three groups of specialists: users (teachers), producers and researchers. The system of production and the process of production were both unique. Production was carried out in the following five phases:

i) Analysis of the social studies curriculum described in the Course of Study in terms of objectives and content;

ii) In-depth study of specific learning units and topics and consideration of content structures and film sequences;

iii) Preparation of scripts by script writers and consideration by users, researchers and producers;

iv) Production and editing of films; and

v) Preparation of teachers' manuals.

This project was not fully completed due to financial constraints and ended in 1955 after the production of 37 films.

In line with the revision of the Course of Study in 1977, an attempt has been made to produce educational films for science and social studies taking the above system as a model.

4.4. Production of Educational Broadcasting Programmes

Unlike other audio-visual materials such as 16 mm motion pictures, broadcasting materials have very unique features. They can be easily used in schools, where radio receivers, TV sets, taperecorders or VTR/VCR are installed without having a complicated system of utilisation, as do film libraries.

In Japan, the Nippon Hoso Kyokai (NHK) produces educational radio and TV programmes. NHK is a non-governmental public service broadcasting organisation financed by its income from the license fee paid by each household, although its budget has to be approved by the government. NHK operates two medium-wave radio networks (first and second), one FM broadcasting and two television networks (General and Education). The programmes produced by the Central Station in Tokyo can be transmitted to all parts of the country and schools through its national network.

There are also five key commercial broadcasting organisations operating national networks with local commercial broadcasting organisations. Educational broadcasts are undertaken by commercial broacasters on a limited scale and there is no national broadcasting service. It can, therefore, be said that NHK plays a major role in providing educational radio and TV programmes to the country.

Programmes for Schools

As of April 1980 NHK has transmitted 87 radio programmes - a total of 25 hours 50 minutes per week - and 127 television programmes - a total of 33 hours 55 minutes per week - to schools. These programmes for schools are transmitted from 9 am to 2 pm or 3.30 pm on weekdays and until noon on Saturday. Transitions in the utilisation rates of school broadcasting programmes are given in Table 9.

Table 9 : Percentage of utilisation of NHK's radio and television school education programmes.

		1974	1975	1976	1977	1978
TV PROGRAMMES	Kindergarten	81.5%	81.7%	81.0%	81.0%	80.7%
	Nursery schools	92.6	92.5	91.4	89.9	85.5
	Elementary schools	94.6	92.5	95.3	95.3	95.1
	Lower secondary schools	45.2	41.3	44.7,	47.1	52.8
	Upper secondary schools					
	- full time	51.9	49.8	53.9	52.5	54.9
	- part time	26.1	27.2	29.1	29.7	33.6
RADIO PROGRAMMES	Kindergarten	28.7	29.0	27.6	20.2	19.6
	Nursery schools	16.8	15.7	16.4	15.7	16.4
	Elementary schools	39.1	33.2	36.1	29.4	30.2
	Lower secondary schools	45.6	34.6	35.7	35.8	38.2
	Upper secondary schools					
	- full time	53.4	41.3	51.3	42.2	40.5
	- part time	35.9	38.7	30.9	25.7	22.8

As shown in Table 9, 80 to 90% of kindergartens, nursery schools and elementary schools constantly use educational TV programmes. In the case of elementary schools, 95% of them use educational TV programmes and their utilisation has already reached the optimum. Lower and upper secondary schools are also using more educational TV programmes. Along with the installation of VTR/VCR equipment in lower secondary schools, more than half began to use educational TV programmes in 1978.

The utilisation of educational radio programmes had decreased by 7 to 13% in five years, except in nursery schools. This is partly because they tend to use TV programmes as there is a TV set in each classroom. More than 30% of elementary and lower and upper secondary schools are, however, still making use of educational radio, as recorded tapes are easily available on the market and can be used at any time.

Social Education Programmes

A variety of social education programmes are broadcast on radio and TV by NHK and commercial broadcasting organisations. The trend is now to make use of entertainment for social education. NHK has promoted a movement called "Effective use of broadcasts in daily life": commercial broadcasters attempt to promote systematic utilisation of social education programmes at the initiative of the Association of Educational Broadcasting in Commercial Broadcasters. The Ministry of Education also promotes the use of broadcasts for social education as of 1971.

As a result broadcasts for social education are used in various ways. More than 34% of the municipal boards of education in Japan (about 1.100) reported to the Ministry of Education on their use of broadcasts in their social education activities, such as youth, womens' and adult education classes.

The most widely used TV programme is one entitled "Mothers' study room"; other radio or TV programmes closely relating to the daily life of the housewife are also used a lot.

Organisation of the production and utilisation of broadcasts

As already mentioned, school education programmes are mainly produced by NHK. It has three major sections directly engaged in the production of educational broadcasts : 1) School Education Section, 2) Correspondence Education Section and 3) Youth Education Section. For the production of general educational programmes, all other sections in NHK closely collaborate with the above three sections. In each of them, a number of professional staff are engaged in production work. In the School Education Section there are 120 professional staff; the correspondence Education Section and the Youth Education Section employ 95 and 90 staff members respectively. For each programme a project team is formed and works on productions according to their professional and academic backgrounds.

Taking the School Education Section as an example, the organisation and system of production can be explained as follows: Staff of the Section is divided into teams for subjects such as science, arithmetic/mathematics, social studies, English, music, moral education, Japanese language and special activities; these are sub-divided according to the level of education i.e. kindergarten/ nursery schools, elementary, lower secondary and upper secondary schools. Each team is responsible for the production of a series of radio or TV programmes to be broadcast every week or every other week. Team members not only serve as "directors (producers)" of the programme, as "planners" they are also responsible for planning a yearly schedule, its organisation, conducting surveys and collecting materials.

When the Course of Study is revised, they analyse its contents, the teaching plans prepared by prefectures or schools, textbooks and they collect all relevant information in order to organise school broadcasting programmes accordingly.

Another important role of these team members is the continuous collection of opinions and reactions of users/receivers by attending study groups, observation of classroom use etc.

Schools desiring to use school programmes in the classroom first obtain, at the beginning of the school year, school programme schedules for the year and school broadcast accompanying manuals. Using these as reference materials, they select programmes that can be used during the year and draw up relevant teaching plans. The schools further study methods of utilisation with respect to each school programme when drafting monthly or weekly plans.

School programmes are, of course, not intended to cover the entire curriculum; they are used along with other teaching materials as part of the total flow of learning activities. School programmes are intended to help the teacher provide what can only be available in radio and television programmes, enrich learning activities in the classroom, enhance learning effectiveness and encourage students to study. For example, it might be dangerous or difficult for urban school children to travel long distances on field trips, especially in large groups. In such cases, television programmes for social studies can enrich classroom learning activities through film or video presentations.

In addition, school programmes can also provide rich teaching materials that could not otherwise be obtained. If a teacher is not well-versed in a certain subject, his lack of knowledge can be supplemented by appropriate programmes.

A total of eleven kinds of accompanying manuals for teachers are published, some of them for joint use by teachers and students They are published every school term, i.e. three times a year, although some are issued once a year. The manuals for each grade of primary school, for example, have a circulation of about 140.000 in each grade.

Advisory Groups to Assist in the Production of Programmes

In planning school education programmes committees are formed by subject and by level to provide advice and guidance to NHK production staff. The members of the Committees are three or four classroom teachers representing users, one or two teachers from the All Japan's Teacher's Federation for Study in the use of Radio and Television in Education, a subject specialist and an official of the Ministry of Education. These committees consider plans proposed by the NHK production staff and make suggestions on the organisation and content of programmes. They finalise their proposals about six months before the start of the new school year.

There are a number of Teachers' Federations for Studying the Use of Radio and Television in Education at different levels of education in each prefecture. They form the All Japan Teachers' Federation for Studying the Use of Radio and Television in Education, an independant research organisation for the study and use of school broadcasts and for the promotion of radio and television education. These federations, research societies and NHK hold joint meetings to discuss research results in order to provide data for the improvement of school programmes, as well as reception facilities. About 1.300 research meetings are held throughout the country every year with the participation of about 120.000 teachers.

Apart from the subject programme committees, School Broadcasting Local Advisory Committees in various prefectures of the country, commissioned by NHK, examine the original overall programme plans. The role of these committees is to advise on problems posed by NHK such as subjects to be dealt with by radio programmes, whether the duration of a programme be shortened from 20 minutes to 15, whether the integrated subject programmes be produced separately from programmes directly relating to specific subjects.

Results are discussed at the Central Advisory Committee Session held in Tokyo which decides upon the outline of the programme. The Central Advisory Committee consists of officials of the Ministry of Education, scholars, representatives of the All Japan Teachers' Federation for Studying the Use of Radio and TV in Education and classroom teachers.

With the help of the above advisory organisations, NHK's educational broadcasting programmes are revised each year to meet the needs of users and to reflect the changes made in the Courses of Study by the Ministry of Education.

4.5. Production and Distribution of Textbooks and Printed Materials

Textbooks

In the Law for the Provisional Measures Covering the Publication of Textbooks, the latter are defined as books for pupils or students wherein the contents are organised and arranged in accordance with the structures of the curriculum for a particular subject and are used as the main instructional material for a subject in elementary, lower and upper secondary schools and other schools of equal status.

The School Education Law also stipulates that textbooks should be used in elementary, lower and upper secondary schools, schools for the blind, deaf and otherwise handicapped and that they should be those authorised by the Minister of Education (authorised textbooks) or those for which copyright is held by the Ministry of Education (MINED textbooks).

In fact, the majority of the textbooks published for and used by elementary, lower and upper secondary schools are authorised textbooks. There is only limited production of MINED textbooks for subjects such as domestic science, agriculture, industry and fishery for the upper secondary level and for special education institutes where private publishers are not in a position to produce because of the very small number of copies required.

Textbooks to be used at all grades in all compulsory education schools have been supplied free since 1969 to pupils and students with a view to implementing to a greater extent the ideal of free compulsory schooling.

Authorisation of a textbook takes place when the status of textbook is conferred upon a book which a publisher has submitted to the Minister of Education for authorisation and has been judged as appropriate and adequate as a textbook after examination.

Publishers wishing to apply for authorisation of textbooks normally prepare their draft textbooks as follows:

They first analyse the objectives and content of a subject prescribed in the Course of Study and prepare provisional curriculum structures and sequences. Based on that, they collect relevant materials and examples suitable for textbooks and, in the case of science, develop methods of experiment. They then request specialists in various subjects and fields, and classroom teachers to prepare a draft manuscript upon which comments from other teachers are invited. This modified draft is further edited by publishers and submitted to the Minister of Education for authorisation. The above process normally takes two to three years. Minor revisions of textbooks are normally made every three years by publishers, apart from the updating of statistics used in the textbook every year, and full revision is undertaken every ten years in accordance with the revision of the course of study.

After receiving applications for authorisation, the Minister of Education consults with the Textbook Authorisation Research Council. The members of the Council are appointed by the Minister from teachers and experienced people. The part-time textbook examiners in the Council and full-time specialists in the textbook examination division in the Ministry conduct separate examinations of textbooks.

Criteria for authorisation consist in the basic conditions common to all subjects with those conditions specific to each subject. The basic conditions are : 1) agreement with the aims and policies of education provided for in the Fundamental Law of Education, and with the aims of the schools and goals of education set out in the School Education Law; 2) agreement with the objectives of the subject as stated in the Course of Study; and 3) fair treatment of political and religious matters.

So far as content and its treatment are concerned, the conditions are : 1) that its range should be based on the Course of study 2) that its level should be suitable for the relevant development stages of the pupils or students; 3) that its selection and treatment should be conducive to good teaching; and 4) its organisation, arrangement and quantity should be appropriate.

For the descriptions of content, the necessary conditions are that they should be accurate and properly written and expressed and for "appearance" that the book should be appropriate in size, number of volumes, with good quality printing and binding.

On the basis of the result of these examinations, the Council judges each textbook and recommends suitable ones to the Minister. Finally, the Minister of Education grants authorisation based on the Council's recommendation.

Each year about 300 applications for textbook authorisation are filed with the Minister.

Lists of authorised textbooks are sent to each school through the prefectural boards of education which hold "textbook exhibitions" for the convenience of teachers who have to recommend manuals for local use. The Law concerning Measures for Free Distribution of Textbooks for Compulsory Education stipulates that the same textbooks should be accepted by a group of cities or towns, which are combined into an acceptance area. Municipal boards of education in these areas decide upon which textbooks to use on the basis of suggestions from schools and the advice of prefectural boards of education. When there are two or more municipal boards of education in the same area, they jointly accept the same textbook for each subject. A report on the number of copies required is then made through the prefectural boards of education to the Ministry of Education which estimates total textbook requirements.

In view of the public nature of textbooks, their price must be approved by the Minister of Education. He announces the maximum prices in advance and publishers print the authorised textbooks at the authorised prices.

It is the duty of publishers to make sure that the textbooks they have published are delivered to the schools for which they have been accepted. For this, the textbook publishers have contacts with textbook suppliers throughout the country, such as the prefectural distribution centres and local distributors (bookstores).

For national and private elementary and secondary schools, the headmaster selects textbooks from amongst those authorised by the Minister of Education on the basis of information and advice given by prefectural boards of education. Textbooks for both public and private upper secondary schools are authorised and published in the same way as those for elementary and lower secondary schools. At the

upper secondary level, however, textbooks are not free of charge and students have to purchase them at designated bookshops.

Under the textbook authorisation system, the selection of textbooks directly affects the publishers' interests and creates circumstances which could give rise to the use of enticements and excessive salesmanship on the part of publishers. To minimise this risk, the Ministry of Education has taken measures to ensure fairplay in the acceptance process and to give publishers equal opportunities for advertising activities. On the other hand, the textbook publishers have organised a corporation called the Textbook Association which agrees upon regulations in terms of approximate number of pages, the number of colours which can be used and the size of the textbooks in order to avoid excessive competition amongst publishers.

Other printed materials

Apart from textbooks and audio-visual materials, various types of printed materials such as exercices, tests and workbooks are also used both in schools and at home. They are used to facilitate learning and evaluate results of learning or as reference materials. In 1978, 300 million copies (at a total cost of 40 billion yen) of various reading/reference materials were published for elementary school pupils and 110 million copies (20 billion yen) for lower secondary school students. 170 million copies of textbooks (43.6 billion yen) were supplied to elementary, lower and upper secondary schools. This may indicate that in Japan, in addition to audio-visual materials, printed materials other than textbooks also play a very important role in improving the effectiveness of learning.

SUPPORT SYSTEM FOR UTILISATION OF TEACHING MATERIALS

Audio-visual and other materials for use in the classroom can be classified into those which are purchased separately and used by individual teachers and pupils and those which are maintained as assets of the school or group of schools and used according to their needs. Textbooks and other printed materials belong to the former category, whilst audio-visual materials are a typical example of the latter.

The management of audio-visual materials is inseparably related to that of the other materials kept in each school. Some audio-visual materials are maintained, managed and used on a regional basis, since it is difficult for a single school to prepare all the necessary audio-visual materials. Expensive teaching materials and equipment must necessarily be jointly prepared and used by several schools.

Audio-visual libraries

There is a system for cooperatively using audio-visual hardware and software and providing certain kinds of services, called an "audio-visual library". It was called a "film library" but is now called "audio-visual library" or "teaching aids centre" and has been given wider scope and meaning. An audio-visual library is generally independantly operated under the responsibility of the director of the library, and officials are placed in charge of the various types of educational materials and equipment, the lending service etc. Several people are assigned to each of these departments but because of the limited number of staff available for such work in most libraries at present, effective procedures for easy and systematic use of the library materials by each school have to be worked out.

In addition, the library handles many other jobs, including publicizing newly purchased teaching materials and equipment, public relations activities and meetings of the administrative committees, materials selection committee, training courses, etc. The importance of improving the management and organisation of audio-visual libraries so that they can effectively carry out their activities has thus been stressed.

Audio-visual libraries are established in each prefecture and are meant to play a key role in audio-visual education. They not only prepare and maintain audio-visual materials, but also provide assistance in purchasing and using such materials and equipment. There

are slight differences of function and activities amongst the libraries but common activities include the following:

i) Loan service of audio-visual equipment to schools - 16 mm and 8 mm projectors, slide projectors, VTR/VCR etc.

ii) Joint purchase, storage and distribution of audio-visual materials;

iii) Production of materials

- slides, transparencies, video tape materials and photographs;

iv) Training of personnel in audio visual education

- skill training, such as the operation of 16mm and 8 mm projectors and VTR
- organisation of discussion groups/study groups on the use of audio-visual materials

Since these activities go beyond the scope of the traditional "library", libraries established since 1972 are called "audio-visual centres" and the Ministry of Education provides financial assistance for their establishment. In 1979, 48 million yen was allocated to the establishment of two such audio visual centres.

Standards for Provision of Audio-Visual Equipment in Audio-Visual Libraries

In 1971, the Ministry of Education issued a circular concerning audio-visual libraries to prefectural boards of education. This circular indicated, amongst other things, the specific roles to be played by boards of education as administrative organisations and libraries as executing agencies; functional differences between audio visual libraries established by prefectures and municipalities; the Standards for the Provision of Audio-Visual Equipment to be installed in libraries. It was also suggested that an administrative committee for the operation of the audio-visual library be set up to ensure realistic management, maintenance and effective use of audio-visual materials based on local situations. The standards are shown in Table 10.

Various measures have since been taken by the national and local governments to achieve these Standards.

The situation of Established Audio-Visual Libraries

There are two types of audio-visual libraries: prefectural and municipal.

Table 10: Standards or Audio-Visual Equipment of AV libraries

Types of A-V Libraries / Types of A-V Equipment	Prefectural A-V Libraries	Municipal A-V libraries located in municipalities with a population of				
		Designated cities	More than 300.000	300.000-100.000	100.000-50.000	Less than 50.000
16 mm film projector	10	20	15	10	7	5
8 mm film projector						
- sound	2	4	4	3	2	2
- silent	2	4	3	2	2	1
16 mm film camera	2	1	1	1	0	0
8 mm film camera	4	4	3	2	2	2
TV sets (colour)	2	2	2	1	1	1
Slide projector	4	10	8	6	4	3
Overhead projector	4	4	4	4	3	2
Transparency maker	1	1	1	1	1	1
Episcope	1	1	1	1	1	1
Radio receiver	2	2	2	2	2	2
Taperecorders	5	10	7	6	5	4
Record player	2	3	3	2	1	1
VTR with a monitor TV	6	6	5	4	3	2
TV camera	4	4	3	2	2	1
Projection screen	5	12	8	7	5	3
16 mm film editor	3	1	1	1	0	0
Automobile (for transportation of materials	2	2	2	1	1	1
Copying machine	1	1	1	1	1	1

1) Prefectural Audio-Visual Libraries

In each prefecture there is at least one audio-visual library set up by the prefectural government. However, those with a large population or covering a wide area have more than one (i.e. 9 audio visual libraries in Tokyo).

The role of these prefectural audio-visual libraries is:

i) To act as a core library to provide information on audio-visual education to audio-visual libraries at the municipal level

ii) To conduct training courses on audio-visual education at intermediate level. The Ministry of Education conducts training courses on audio-visual education at three levels; basic, intermediate and advanced. Prefectural audio-visual libraries are expected to undertake intermediate courses.

iii) To co-purchase and store audio-visual materials for social education which are then loaned to social education facilities, organisations and schools;

iv) To provide services to prefectural public upper secondary schools.

According to the organisational structure of the Ministry of Education, prefectural audio-visual libraries come under the jurisdiction of the Division of Social Education of the Prefectural Boards of Education. Full-time audio visual education supervisers and other staff are allocated to the libraries for maintenance of equipment and other clerical work.

Materials requested on loan are dispatched by mail, railway or road. Borrowers also come to the libraries to pick up materials.

2) Municipal Audio-Visual Libraries

Municipal audio visual libraries play an important role in the community as they are directly and closely linked with schools, social education centres and other organisations.

Audio-visual libraries have already been established in 52.8% of municipalities. In the case of villages and towns with small populations, it is difficult to establish independant municipal libraries in spite of the need for them. In these cases, the establishment of audio-visual libraries within existing schools, public halls (the most widely established social education facilities in Japan), and public libraries has been facilitated.

Out of 547 existing municipal audio-visual libraries, 369 have been independantly established by the municipality. The remainder

have been established as cooperatives or joint ventures. Some are operated by cooperatives established for general public administration of neighbouring municipalities. As the cooperatives are legal bodies, the operation of libraries is financed at public expense. Some libraries are operated by associations of towns and villages formed for the purpose of operating the joint libraries. Others makes use of the facilities in existing institutions, such as education centres, youth centres and public halls.

With the modernisation of instructional equipment and teaching materials and the quantitative increase of educational information. audio-visual libraries have become necessary as resource centres. Such libraries must operate in close collaboration with schools in order to provide suitable equipment and materials and to promote their active use.

Audio visual libraries are better established in large cities (with populations of more than 300.000) as compared with small cities, towns and villages. However, the establishment and maintenance of well-equipped audio-visual libraries in municipalities is still called for.

It is taken for granted that the effectiveness of audio-visual libraries depends partly on how they are used by teachers. No matter how complete the organisation of an audio-visual library and the teaching materials, it will not be effective if teachers do not make systematic and efficient use of the audio-visual materials to improve educational methods, content and quality. The promotion of both the improvement of audio-visual libraries and their effective use by teachers is vital for the future.

VI

CONCLUSION

Educational media is being increasingly used at school in Japan. It has considerable scope for future expansion and development to meet emerging educational needs. Some conclusions may be drawn from the existing situation of educational media which has been briefly described in the preceding sections.

1) Production of teaching aids and materials is undertaken on a commercial basis and there is no production system within the Ministry of Education. Consequently, manufacturers tend to produce materials for which there is a demand. Even if they see the significance of materials for education, they tend to avoid producing materials whose development costs are high.

The Ministry of Education has taken some measures to remedy this and provides financial assistance, commissions commercial firms to produce material and purposes and distributes it to schools. At present, due to financial constraints experienced by local audio-visual libraries, it is difficult to establish a large-scalle mass production system. An increase in financial assistance from the national budget for the production and purchase of good materials is therefore called for.

2) For hard and software the Second Ten-Year Plan started in 1978 after the First Ten-Year Plan and financial provisions from national funds were more than doubled. However, the financial status of local public bodies vary and due consideration must be given to the regional imbalance when implementing the plans to supply instructional materials. Even this Ten-Year Plan may have to be reviewed midway and adjusted based on the situation and problems faced during its implementation. It may also be necessary to increase the proportion of the government's share in financing the provision of media.

3) It would seem that this is being increasingly installed in schools and audio-visual libraries judging from the Standards. However, ways and means of improving the management of audio-visual libraries for the benefit of users must now be considered.

Problems such as the lack of personnel and transportation facilities for effective operation of libraries have already been pointed out. Some measures need to be taken to increase the number of library staff, set up a fully functional service system for schools and provide materials and information promptly on request.